Reply to the Editor:

The initial point of our study was to investigate functional protection after myocardial ischemia/reperfusion injury. We mostly focused on the hemodynamic study of the heart. In some aspects, the elevation of high-sensitivity C-reactive protein in serum after myocardial ischemia/reperfusion related to the injury in myocardium, except creatine kinase, myocardial band of creatine kinase, and tropinin I. Thus, we mainly discussed inflammation and myocardial injury.

Furthermore, we did evaluate tumor necrosis factor-α and some other cytokines in our later experiment, and we further discussed the high-sensitivity C-reactive protein and acute-phase response in myocardial ischemia-reperfusion. We hope to publish the results soon.

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THE VICTIM OF THORACIC GUNSHOT: ASSESSMENT OF THE PATIENT AND MANAGEMENT OF PULMONARY ARTERY BULLET EMBOLISM

To the Editor:

We read with great interest the article titled ''Gunshot Wound of the Main Pulmonary Artery: A Case Report'' by Atalay and associates.[1] The authors report a skilled and beautiful operation performed in a young man with a lesion caused by a pistol bullet entering the main pulmonary artery. The patient arrived at the emergency department unconscious and with unstable vital signs, requiring, as stated the authors, urgent surgical intervention. After initial physical examination, a computed tomogram (CT) of the chest was performed, showing the projectile in the cardiac mass. Then the patient was taken to the operating room and the incision chosen was a median sternotomy.

It is not our routine nor would we recommend performing chest CT in patients with unstable vital signs who have penetrating thoracic trauma. These patients could have an unpredictable course during this radiologic examination or during the mobilization needed for the CT, and their status could rapidly deteriorate. Johnson and colleagues,[2] in an article reporting 79 consecutive penetrating intrapericardial wounds, concluded that immediate transport to the operating room was an important contributing factor to success when facing these lesions.

Our institution is a university hospital with a level I trauma center, and we have some expertise in managing thoracic gunshot wounds owing to the high rate of civilian conflicts in Rio de Janeiro, Brazil. Although the authors performed a median sternotomy, which was guided by the information provided by chest CT, our approach would be to perform a left anterolateral thoracotomy, given that we would not have performed CT of the chest. The incision could be extended to the right side after we recognized the lesion in the mediastinal structure. This approach can be faster then median sternotomy and better done by a nonthoracic surgeon, which is the reality for most of trauma centers in the world. We have noticed a high rate of complications when sternotomy is performed by a nonthoracic surgeon in an emergency setting. Also, the clamshell incision provides a better operative field for both pleural cavities and the posterior mediastinum when compared with median sternotomy.

Although controversy exists regarding bullet extraction in cases of pulmonary arterial embolism,[3] some authors suggest removing the projectile even in asymptomatic patients. Nevertheless, we agree with Atalay and associates that pulmonary bullet embolism must be managed on an individual basis and that initial operation should focus on maintaining the patient alive. Therefore, no attempt should be made to extract the bullet during an emergency operation in a patient whose condition is unstable.[4] If one decides to reoperate on the patient to extract the projectile, this second look operation must take into account the risks of the surgery when the patient is asymptomatic.

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Reply to the Editor:

We thank Drs de Andrade, Mourad, and Judice for their interest in our article ''Gunshot Wound of the Main Pulmonary Artery.''[1] Because no individual center apart from very specialized trauma centers has extensive enough experience with missile emboli, but all thoracic surgeons are one day likely to encounter this pathologic condition with a peculiar presentation, we were stimulated to answer their constructive criticisms in a review-like manner.

Although missile embolism is a rare entity, its manifestations are protean. Three types of missile embolism have been reported: arterial, venous, and paradoxic.[2] Embolism to the